



Docket No.: 1330.1010

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*AT*  
*[Signature]*

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re The Application Of:

Laurence Honarvar

Serial No. 09/216,985

Group Art Unit: 3627

Confirmation No. 8897

Filed: December 21, 1998

Examiner: M.A. Cuff

For: **SIMULTANEOUS CUSTOMER/ACCOUNT STRATEGY EXECUTION IN A DECISION  
MANAGEMENT SYSTEM**

**APPEAL BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is responsive to the Office Action mailed May 26, 2004.

A Notice of Appeal was filed on September 27, 2004, thereby having a two-month shortened statutory due date for filing an Appeal Brief set to expire on November 27, 2004. A petition and fee for a two-month extension of time is filed concurrently herewith, thereby extending the due date for filing an appeal brief to January 27, 2005.

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1. Real Party In Interest

The present application is assigned to American Management Systems, Inc. (AMS), as evidenced by an Assignment recorded at Reel/Frame 9665/0045.

However, AMS has recently combined with CGI, with the new company being named CGI-AMS. Therefore, the real party in interest is CGI-AMS.

2. Related Appeals And Interferences

There are no related appeals or interferences known to the applicant, the applicant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

3. Status Of The Claims

Claims 1-11, 22-37 and 48-50 are currently pending. All of these pending claims are rejected.

The pending claims are listed in the Appendix attached hereto.

4. Status of Amendments

The outstanding Office Action is non-Final. All filed Amendments have been entered. Accordingly, there are no outstanding Amendments filed subsequent to a final rejection.

5. Summary Of The Invention

The present invention as recited, for example, in claim 1, relates to a computer-implemented decision management process for evaluating a customer of an organization having more than one account. The process comprises (a) loading all customer and account data required for evaluating the customer and each of the accounts; and (b) evaluating the customer and each of the accounts via an iterative function which uses the loaded customer and account data.

As recited, for example, in claim 1, the evaluation determines which strategy of a plurality of strategies will be used to evaluate each account via the iterative function based on a type of the account, evaluates each account for a same product or service via the iterative function with the same strategy, and evaluates accounts for different products or services via the iterative function with different strategies.

Moreover, as recited, for example, in claim 1, the loaded customer and account data is loaded at a time prior to the evaluation and is sufficient to evaluate the customer and each of the accounts by the evaluation without loading additional customer or account data.

As an example, in the specific example in FIG. 10 of the application, an iterative function (see "next iteration" in FIG. 10) is used to evaluate the customer and each of the accounts. In steps 222 and 224, the type of account is taken into consideration. For example, it is determined what kind of product or service the account is for. In FIG. 10, different strategies are used to evaluate credit card accounts and mortgage accounts, respectively. Via the iterative function in FIG. 10, the process loops back so that each account of the customer is evaluated, with accounts for different products or services being evaluated with different strategies.

Therefore, in the example of FIG. 10, via the use of an iterative function, all the required customer and account data is loaded, prior to doing the evaluation for the various accounts. The loaded customer and account data is sufficient to evaluate the customer and each of the accounts, without loading additional customer or account data.

See FIG. 10, and the corresponding disclosure on page 21, lines 14-26. See also, for example, page 17, line 19, through page 25, line 3, of the specification, and FIGS. 9 and 11-14.

## 6. Issue

Should claims 1-11, 22-37 and 48-50 be rejected under 35 USC 103 as being unpatentable over Walker et al. (US Patent No. 6,088,686) in view of Hoover et al. (US Patent No. 5,560,005)?

## 7. Grouping Of The Claims

It is respectfully submitted that claims 1-11, 22-37 and 48-50 do not stand or fall together. Instead, it is respectfully submitted that the claims should be grouped as indicated below:

Group I, claims 1-6, 8, 9, 22, 23, 24, 26-31, 34, 35 and 48-50, as these claims relate to evaluating a customer and accounts via an iterative function;

Group II, claims 7, 32 and 33, as these claims relate to an iterative matrix; and

Group III, claims 10, 11, 25, 36 and 37, as these claims relate to an iterative function calling another iterative function.

8. Argument

Issue: Should claims 1-11, 22-37 and 48-50 be rejected under 35 USC 103 as being unpatentable over Walker et al. (US Patent No. 6,088,686) in view of Hoover et al. (US Patent No. 5,560,005)

I. Group I, claims 1-6, 8, 9, 22, 23, 24, 26-31, 34, 35 and 48-50

It is respectfully submitted that claims 1-6, 8, 9, 22, 23, 24, 26-31, 34, 35 and 48-50 should be grouped together, as these claims relate to evaluating a customer and accounts via an iterative function.

The present invention as recited, for example, in claim 1, relates to a computer-implemented decision management process for evaluating a customer of an organization having more than one account. The process comprises (a) loading all customer and account data required for evaluating the customer and each of the accounts; and (b) evaluating the customer and each of the accounts via an iterative function which uses the loaded customer and account data.

As recited, for example, in claim 1, the evaluation determines which strategy of a plurality of strategies will be used to evaluate each account via the iterative function based on a type of the account, evaluates each account for a same product or service via the iterative function with the same strategy, and evaluates accounts for different products or services via the iterative function with different strategies.

Moreover, as recited, for example, in claim 1, the loaded customer and account data is loaded at a time prior to the evaluation and is sufficient to evaluate the customer and each of the accounts by the evaluation without loading additional customer or account data.

As an example, in the specific example in FIG.10 of the application, an iterative function (see "next iteration" in FIG. 10) is used to evaluate the customer and each of the accounts. In steps 222 and 224, the type of account is taken into consideration. For example, it is determined what kind of product or service the account is for. In FIG. 10, different strategies are used to evaluate credit card accounts and mortgage accounts, respectively. Via the iterative function in FIG. 10, the process loops back so that each account of the customer is evaluated, with accounts for different products or services being evaluated with different strategies.

Therefore, in the example of FIG. 10, via the use of an iterative function, all the required customer and account data is loaded, prior to doing the evaluation for the various accounts. The loaded customer and account data is sufficient to evaluate the customer and each of the accounts, without loading additional customer or account data. Please note that claim 1

specifically recites that the customer and each of the accounts is evaluated via an iterative function which uses the loaded customer and account data, and that the loaded customer and account data is sufficient to evaluate the customer and each of the accounts without loading additional customer or account data. See for example, page 17, line 19, through page 18, line 6, of the specification. See also FIGS. 9, 10 and 11.

Walker relates to processing of applications for products and services offered by a financial institution. See, for example, the Abstract, and column 5, lines 66, through column 6, line 15, of Walker. The overall processing of applications is shown in the flow chart which runs from FIGS. 40-51 of Walker.

However, Walker shows the processing of only a single application by an applicant. The process does not show the processing of multiple applications by the same applicant.

For example, FIGS. 40-51 of Walker show the various processes which are executed to determine if a respective application is accepted. Final processing is shown in FIG. 51. Referring to FIG. 51, after a decision on a processed application is made, customer information is updated in step 2258. Then, the processing ends in step 2260.

It is important to note that the final processing in FIG. 51 of Walker does not loop back to FIG. 40 to begin processing of another application of the same applicant. This is significantly different than the present invention, where a plurality of accounts of an applicant are evaluated via an iterative function.

Therefore, Walker does not show the use of an iterative function to evaluate more than one account, as in various embodiments of the present invention.

Moreover, if some type of loop back was considered in Walker, it is unclear where such a loop back would return. For example, steps 2002 to 2006 in FIG. 40 of Walker relate to the loading of customer data. If the system of Walker would require a loop back to steps 2000 or 2002, such a loop back would be significantly different than various claimed embodiments of the present invention where all the required customer and account data for evaluating a plurality of accounts is loaded, since customer data in Walker would have to be reloaded in the system to evaluate another application. This operation in Walker would be contrary to the present invention as recited, for example, in claim 1. Please note that Walker also retrieves data in other steps, such as in steps 2092 and 2094 in FIG. 43.

Therefore, it is respectfully submitted that Walker does not disclose or suggest the use of an iterative function to evaluate a plurality of accounts of a customer, or the loading of all required customer and account data to evaluate a plurality of accounts of the customer, as in various claimed embodiments of the present invention.

Claim 1 also recites that "said evaluating determines which strategy of a plurality of strategies will be used to evaluate each account via the iterative function based on a type of the account". For example, in operations 222 and 224 in FIG. 10, different strategies are used to evaluate an account based on the type of account.

More specifically, as recited, for example, in claim 1, and as shown in FIG. 10, an iterative function (see "next iteration" in FIG. 10) is used to evaluate the customer and each of the accounts. In steps 222 and 224, the type of account is taken into consideration. For example, it is determined what kind of product or service the account is for. In FIG. 10, different strategies are used to evaluate credit card accounts and mortgage accounts, respectively. Via the iterative function in FIG. 10, the process loops back so that each account of the customer is evaluated, with accounts for different products or services being evaluated with different strategies.

It is respectfully submitted that Walker does not disclose or suggest such features.

\* \* \*

Claim 1 specifically recites that the customer and each of the accounts thereby being evaluated in a "single pass." A "single pass" indicates that, in the evaluation of a customer, the required customer and account data is retrieved and loaded once, prior to doing the customer evaluation. After the data is loaded, customer and account rules can be run interactively and interchangeably against the data. See for example, page 17, line 19, through page 18, line 6, of the specification.

As described, for example, on page 17, line 19, through page 18, line 6, of the specification, such use of a single pass is particularly important where a respective customer has many accounts. Thus, the process does not have to run multiple times with dependencies between previous and subsequent occurrences.

In view of the above comments, it is respectfully submitted that Walker does not disclose or suggest such a "single pass".

\* \* \*

On page 3 of the outstanding Office Action, the Examiner asserts that:

"Via on-line real-time integration of the many systems (block 52) involved in the process, all of the existing customer's accounts (each of the customer's accounts, some can be of the same type) are systematically and automatically reviewed (all customer and account data loaded without additional data) during the application session to determine the aggregate balance amount, which gives rise to the best price being offered to the existing customer 10 (evaluating customer) for the requested credit product."

The above quote from the Office Action corresponds to the disclosure in column 9, lines 33-39, of Walker.

However, it is respectfully submitted that this portion of Walker does not disclose or suggest the use of an iterative function in the manner recited, for example, in claim 1 of the present application and shown, for example, in FIG. 10 of the present application.

Instead, the above-described disclosure in Walker relates to various steps in the flow charts of FIGS. 40-51 of Walker. For example, the above-described disclosure in Walker refers to block 52. Step 2006 in FIG. 40 of Walker specifically includes the notation "as illustrated in figure 1 block 52".

However, not all data is loaded in step 2006 of FIG. 40 of Walker. For example, Walker continues to load additional required data throughout any evaluation process in Walker. For example, Walker also retrieves data in steps 2092 and 2094 in FIG. 43.

Therefore, it is respectfully submitted that Walker does not load all customer and account data required for evaluating the customer and each of the accounts prior to initiating the evaluation without loading additional customer or account data.

Please note that claim 1 specifically recites that the data is loaded prior to "initiating" the evaluation.

Moreover, the above-described portion of Walker simply indicates that Walker determines the best price to offer an existing customer for a requested credit product. This portion of Walker does not disclose or suggest that a decision is produced for each account of the customer.

Please note that claim 1 specifically recites a respective decision being produced for each of the accounts. See, for example, Decisions D1 through D8 in FIG. 10 of the present application.

\* \* \*

On page 3 of the outstanding Office Action, the Examiner refers to the Maximum Debt Burden Offer of Walker.

The Maximum Debt Burden Offer is disclosed, for example, in column 7, line 57, through column 8, line 24, of Walker. As specifically disclosed in column 8, lines 17-24, of Walker, the Maximum Debt Burden Offer refers to:

A maximum loan or line dollar amount whose associated monthly payment, when added to the monthly payment amounts for the applicant's existing debts and rent or mortgage payment, divided by the customers' monthly income, creates a debt burden ratio (such as 45%) that is specified in the product parameters. If the maximum debt burden

amount is negative or not used because amount requested is less than designated parameter (e.g., \$2,500), the amount assigned to Maximum Debt Burden Offer will default to product minimum.

Therefore, generally, Walker simply uses the total debt payments to determine an amount that can be loaned to an applicant. Such debt payments might include, for example, credit card debt and mortgage debt.

However, this disclosure in Walker does not indicate the use of an iterative function to evaluate each account of a customer for a same product or service via the same strategy and evaluate accounts of the customer for different products or services with different strategies as recited, for example, in claim 1. For example, as indicated above, Walker shows the processing of only a single application by an applicant. The process does not show the processing of multiple applications by the same applicant.

\* \* \*

On page 4 of the Office Action, the Examiner asserts that Walker shows a series of tables which are iteratively used in the process of Walker. Therefore, the Examiner correlates the tables of Walker to the iterative function of the claimed invention.

The tables of Walker are disclosed, for example, in column 9, line 66, through column 10, line 13, of Walker. From this disclosure in Walker, it appears that the tables are used simply as a relational tool to access stored data, such as in a relational database model. Such use of tables is significantly different than the use of an iterative function of the claimed invention. More specifically, it is respectfully submitted that the tables of Walker do not indicate the use of an iterative function to evaluate each account of a customer for a same product or service with the same strategy and evaluate accounts of the customer for different products or services with different strategies as recited, for example, in claim 1. Instead, the tables of Walker simply indicate that data can be stored and accessed in a relational manner.

\* \* \*

Hoover describes an "object-based relational distributed database system and associated methods of operation that transforms data stored in a plurality of remote, heterogeneous user databases into a homogeneous data model." See, for example, the Abstract of Hoover.

However, in view of the comments above with respect to Walker, it is respectfully submitted that the present invention is patentable over the combination of Walker and Hoover.



In view of the above, it is respectfully submitted that claims 1-6, 8, 9, 22, 23, 24, 26-31, 34, 35 and 48-50 of Group I are patentable over the cited references.

II. Group II, claims 7, 32 and 33

It is respectfully submitted that claims 7, 32 and 33 should be grouped together, as these claims relate to the use of an iterative matrix.

See, for example, the use of an iterative matrix in FIG. 14 and the corresponding disclosure on page 24, line 5, through page 25, line 3, of the specification.

In view of the above comments with respect to the tables in Walker, it is respectfully submitted that none of the cited references discloses or suggests the use of an iterative matrix.

In view of the above, it is respectfully submitted that claims 7, 32 and 33 of Group II are patentable over the cited references.

III. Group III, claims 10, 11, 25, 36 and 37

It is respectfully submitted that claims 10, 11, 25, 36 and 37 should be grouped together, as these claims relate to an iterative function calling another iterative function. See, for example, page 24, lines 1-3, of the specification.

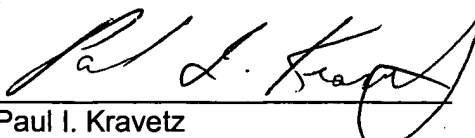
In view of the above comments with respect to the tables in Walker, it is respectfully submitted that none of the cited references discloses or suggests an iterative function calling another iterative function.

In view of the above, it is respectfully submitted that claims 10, 11, 25, 36 and 37 of Group III are patentable over the cited references.

\* \* \*

Respectfully submitted,  
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## APPENDIX

### PENDING CLAIMS

1. (PREVIOUSLY PRESENTED) A computer-implemented decision management process for evaluating a customer of an organization having more than one account, comprising:
  - loading all customer and account data required for evaluating the customer and each of the accounts;
  - evaluating the customer and each of the accounts via an iterative function which uses the loaded customer and account data, wherein said evaluating determines which strategy of a plurality of strategies will be used to evaluate each account via the iterative function based on a type of the account, and evaluates each account for a same product or service via the iterative function with the same strategy and evaluates accounts for different products or services via the iterative function with different strategies, to thereby produce a respective decision for each of the accounts, the loaded customer and account data being loaded at a time prior to initiating said evaluating and being sufficient to evaluate the customer and each of the accounts by said evaluating without loading additional customer or account data, the customer and each of the accounts thereby being evaluated in a single pass via the iterative function; and
  - taking an action in accordance with a result of said evaluating.
2. (PREVIOUSLY PRESENTED) A process as in claim 1, further comprising:
  - providing the customer data and the account data to the process for evaluation on separate extracts.
3. (PREVIOUSLY PRESENTED) A process as in claim 1, further comprising:
  - providing the customer data and the account data to the process for evaluation on a plurality of extracts.
4. (ORIGINAL) A process as in claim 3, wherein different extracts are associable with different data sources.

5. (PREVIOUSLY PRESENTED) A process as in claim 1, wherein at least one of the customer data and the account data are accessed for evaluation via the iterative function via virtual attributes.

6. (PREVIOUSLY PRESENTED) A process as in claim 1, wherein said evaluating comprises:

evaluating the customer and each of the accounts for the same product or service via an iterative decision tree having virtual attributes and which iterates through in accordance with the number of said accounts for the same product or service of the customer.

7. (PREVIOUSLY PRESENTED) A process as in claim 1, wherein said evaluating comprises:

evaluating the customer and each of the accounts for the same product or service via an iterative matrix having virtual attributes and which iterates through in accordance with the number of said accounts for the same product or service of the customer.

8. (PREVIOUSLY PRESENTED) A process as in claim 1, wherein said evaluating comprises:

evaluating the customer and each of the accounts for the same product or service via an iterative function having virtual attributes and which iterates through in accordance with the number of said accounts for the same product or service of the customer.

9. (PREVIOUSLY PRESENTED) A process as in claim 1, wherein said evaluating comprises:

evaluating the customer and each of the accounts for the same product or service via an iterative function having both virtual attributes and non-virtual attributes and which iterates through in accordance with the number of said accounts for the same product or service of the customer.

10. (PREVIOUSLY PRESENTED) A process as in claim 1, wherein said evaluating comprising:

evaluating the customer and each of the accounts for the same product or service via first and second iterative functions, each having virtual attributes and iterating through in

accordance with the number of said accounts for the same product or service of the customer, wherein the first iterative function calls the second iterative function.

11. (ORIGINAL) A process as in claim 10, wherein the first iterative function is an iterative decision tree and the second iterative function is an iterative matrix.

12. (CANCELED)

13. (CANCELED)

14. (CANCELED)

15. (CANCELED)

16. (CANCELED)

17. (CANCELED)

18. (CANCELED)

19. (CANCELED)

20. (CANCELED)

21. (CANCELED)

22. (ORIGINAL) A process as in claim 8, further comprising:  
storing results of iterations through the iterative function in a derived virtual attribute.

23. (PREVIOUSLY PRESENTED) A computer-implemented decision management process for evaluating a customer of an organization having more than one account, said more than one account including accounts for different products or services, the process comprising:

providing an iterative function to evaluate the customer and each of the accounts, the iterative function having virtual attributes for accessing at least one of customer data and account data;

iterating through the iterative function in accordance with the number of the accounts to thereby evaluate the customer and each of the accounts, wherein the iterative function determines which strategy of a plurality of strategies will be used to evaluate each account based on a type of the account, evaluates each account for the same product or service with the same strategy, and evaluates accounts for different products or services with different strategies, to thereby produce a respective decision for each of the accounts, and to thereby evaluate the customer and each of the accounts in a single pass via the iterative function; and  
taking an action in accordance with a result of the evaluation of the customer.

24. (PREVIOUSLY PRESENTED) A process as in claim 23, wherein the iterative function is one of an iterative decision tree, an iterative matrix, an iterative score model, an iterative list processor and an iterative user exit.

25. (ORIGINAL) A process as in claim 23, wherein the iterative function calls another iterative function.

26. (PREVIOUSLY PRESENTED) An apparatus for evaluating a customer of an organization having more than one account, comprising:

a computer-implemented evaluation device which loads all customer and account data required for evaluating the customer and each of the accounts, and evaluates the customer and each of the accounts via an iterative function which uses the loaded customer and account data, wherein the evaluation device determines which strategy of a plurality of strategies will be used to evaluate each account via the iterative function based on a type of the account, and evaluates each account for a same product or service via the iterative function with the same strategy and evaluates accounts for different products or services via the iterative function with different strategies, to thereby produce a respective decision for each of the accounts, the loaded customer and account data being loaded at a time prior to initiating the evaluation by the evaluation device and being sufficient to evaluate the customer and each of the accounts by the evaluation device without loading additional customer or account data, the evaluation device thereby evaluating the customer and each of the accounts in a single pass via the iterative function; and

an action taking system which takes an action in accordance with a result of the evaluation by the evaluation device.

27. (PREVIOUSLY PRESENTED) An apparatus as in claim 26, wherein the iterative function has virtual attributes and iterates through in accordance with the number of said accounts .

28. (PREVIOUSLY PRESENTED) An apparatus for evaluating a customer of an organization having more than one account, comprising:

computer-implemented evaluating means for loading all customer and account data required to evaluate the customer and each of the accounts, and for evaluating the customer

and each of the accounts via an iterative function which uses the loaded customer and account data, wherein said means determines which strategy of a plurality of strategies will be used to evaluate each account via the iterative function based on a type of the account, evaluates each account for a same product or service via the iterative function with the same strategy and evaluates accounts for different products or services via the iterative function with different strategies, to thereby produce a respective decision for each of the accounts, the loaded customer and account data being loaded at a time prior to initiating said evaluating and being sufficient to evaluate the customer and each of the accounts by said means without loading additional customer or account data, the customer and each of the accounts thereby being evaluated in a single pass via the iterative function; and

means for taking action in accordance with a result of the evaluation by the evaluating means.

29. (PREVIOUSLY PRESENTED) A computer-implemented decision management process for evaluating a customer of an organization having more than one account for a first product or service, and more than one account for a second product or service different from said first product or service, comprising:

loading all customer and account data required for evaluating the customer and each of the accounts;

via an iterative function which uses the loaded customer and account data,

determining whether each account is for the first product or service or for the second product or service,

evaluating the customer and each of the determined accounts for the first product or service with a first strategy, and

evaluating the customer and each of the determined accounts for the second product or service with a second strategy different from the first strategy, to thereby produce a respective decision for each of the determined accounts for the first product or service and for each of the determined accounts for the second product or service, the loaded customer and account data being loaded at a time prior to initiating said evaluating and being sufficient to evaluate the customer and each of the accounts via the iterative function without loading additional customer or account data, the customer and each of the determined accounts thereby being evaluated in a single pass via the iterative function; and

taking an action in accordance with said evaluating the customer and each of the determined accounts for the first product or service and said evaluating the customer and each of the determined accounts for the second product or service.

30. (PREVIOUSLY PRESENTED) A process as in claim 29, wherein said evaluating the customer and each of the determined accounts for the first product or service comprises:

evaluating the customer and each of the determined accounts for the first product or service via an iterative decision tree having virtual attributes and which iterates through in accordance with the number of accounts for the first product or service of the customer.

31. (PREVIOUSLY PRESENTED) A process as in claim 30, wherein said evaluating the customer and each of the determined accounts for the second product or service comprises:

evaluating the customer and each of the determined accounts for the second product or service via an iterative decision tree having virtual attributes and which iterates through in accordance with the number of accounts for the second product or service of the customer.

32. (PREVIOUSLY PRESENTED) A process as in claim 29, wherein said evaluating the customer and each of the determined accounts for the first product or service comprises:

evaluating the customer and each of the determined accounts for the first product or service via an iterative matrix having virtual attributes and which iterates through in accordance with the number of accounts for the first product or service of the customer.

33. (PREVIOUSLY PRESENTED) A process as in claim 32, wherein said evaluating the customer and each of the determined accounts for the second product or service comprises:

evaluating the customer and each of the determined accounts for the second product or service via an iterative matrix having virtual attributes and which iterates through in accordance with the number of accounts for the second product or service of the customer.

34. (PREVIOUSLY PRESENTED) A process as in claim 29, wherein said evaluating the customer and each of the determined accounts for the first product or service comprises:

evaluating the customer and each of the determined accounts for the first product or service via an iterative function having virtual attributes and which iterates through in accordance with the number of accounts for the first product or service of the customer.

35. (PREVIOUSLY PRESENTED) A process as in claim 34, wherein said evaluating the customer and each of the determined accounts for the second product or service comprises:  
evaluating the customer and each of the determined accounts for the second product or service via an iterative function having virtual attributes and which iterates through in accordance with the number of accounts for the second product or service of the customer.

36. (PREVIOUSLY PRESENTED) A process as in claim 29, wherein said evaluating the customer and each of the determined accounts for the first product or service comprises:  
evaluating the customer and each of the determined accounts for the first product or service via first and second iterative functions, each having virtual attributes and iterating through in accordance with the number of accounts for the first product or service of the customer, wherein the first iterative function calls the second iterative function.

37. (PREVIOUSLY PRESENTED) A process as in claim 36, wherein said evaluating the customer and each of the determined accounts for the second product or service comprises:  
evaluating the customer and each of the determined accounts for the second product or service via first and second iterative functions, each having virtual attributes and iterating through in accordance with the number of accounts for the second product or service of the customer, wherein the first iterative function calls the second iterative function.

38. (CANCELED)

39. (CANCELED)

40. (CANCELED)

41. (CANCELED)

42. (CANCELED)

43. (CANCELED)

44. (CANCELED)

45. (CANCELED)

46. (CANCELED)

47. (CANCELED)

48. (PREVIOUSLY PRESENTED) A process as in claim 1, wherein  
said evaluating produces a respective decision for each account, the respective decision being a terminal node in a decision tree, and



said taking an action executes decisions produced for accounts.

49. (PREVIOUSLY PRESENTED) A process as in claim 23, wherein  
said iterating produces a respective decision for each account, the respective decision  
being a terminal node in a decision tree, and  
said taking an action executes decisions produced for accounts.

50. (PREVIOUSLY PRESENTED) An apparatus as in claim 26, wherein  
the evaluation device produces a respective decision for each account, the respective  
decision being a terminal node in a decision tree, and  
the action taking system an action executes decisions produced for accounts.